**Algebra Content Lesson**

**21st Century Learning**

South Philadelphia HS-Ms. Wossene

**Objective:**

**Today we will demonstrate understanding** of the computations involving scientific notation

**You will know you have learned this when you** can convert from standard form to scientific notation and vice versa.

**Content Standard(s) Addressed:**

**2.1.8 E:** Simplify and expand algebraic expressions using exponential forms (M11.A.1.2)

**2.2.9.A:** Develop and use computation and concepts, operations and procedures with real numbers in problem solving situations.

**21st Century Skills Addressed\*:**

Communication, Interpersonal & Collaborative Skills

Critical Thinking & Systems Thinking

Problem Identification, Formulation & Solution

Self-Direction, Accountability & Adaptability

**Project Goals:**

**Do Now**: (5 minutes) From Holt Textbook. Also included in flipchart.

**Intro to new material:** Show the Powers of Ten video. Give students a guided notes sheet to follow along. Emphasize the reason we use scientific notation.

Link: [http://player.discoveryeducation.com/index.cfm?guidAssetID=C114EA58-159F-4C0F-AB9C-27A817854F83&productcode=US](http://player.discoveryeducation.com/index.cfm?guidAssetID=C114EA58-159F-4C0F-AB9C-27A817854F83&productcode=US" \t "_blank)

\*log into Discovery Ed from Schoolnet to access video

**Guided Practice**: (10 minutes) Team Review. Worksheet included if remediation is necessary for lower level students.

**Independent Practice**: (10 minutes) Students will solve several problems on their own writing numbers in scientific notation, standard notation, and operating with scientific notation.

**Wipe Out!**: (20 minutes) Students will play wipe out in partners, where they have a game board and the goal is to be the person on the team with the most correct on the board. They will take turns selecting problems from the board to solve and will put their initials in the box along with their answers. When they are done, they raise their hand and I check their board for correction to declare a winner!

**Closing**: \*\*Writing: Why is it helpful to write a number such as 23,000,000,000 or 0.0000000005 in scientific notation? Explain, in your own words, how to rewrite both of those numbers in scientific notation.

\*Modification: Use handhelds for closing and have students write their responses for immediate assessment.

**Assessment:**

Use Independent Practice as an exit slip to check for student mastery on objective. I collect these worksheets.